REMARKS

The informalities in the disclosure objected to by Examiner are being corrected. Specifically, on page 11, lines 12 and 22, the numeral "112 " is being changed to --110'-- to be consistent with that shown in FIG. 2. Also a typographical error is corrected on line 7. No new matter is being introduced.

The Examiner has objected to the informalities in the preamble of the multiple dependent claims. The informalities are being corrected to insert --claims-- before "9-12" in claims 13, 14 and 15.

The Examiner has rejected claims 1-3, 6-7, 9-13 and 15 under 35 U.S.C. 102(e) as being anticipated by Jimenez et al (USP 2002/0006124 A1)

The Examiner has rejected claims 4, 5 and 14 under 35 U.S.C. 103(a) as being unpatentable over Jimenez.

The Examiner has rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Jimenez in view of Wan et al (USP 2003/0142625 A1).

Independent claim 1 is being amended to more clearly define the invention. In particular, the feature is recited of using a parser to interpret the XML script of a retrieved XML document into opcodes of a telephony-specific virtual machine. The virtual machine then executes the interpreted opcodes to process the telephone call. Thus, the application gateway center is now recited to comprise:

--a webpage retriever for retrieving the XML document associated with the specified call number;

a virtual machine for running a set of telephony-specific opcodes; and

a telephony scripting language parser for interpreting the XML scripts in the retrieved XML document into said telephony-specific opcodes for execution on said virtual machine to process said telephone call.--

Support in the specification for the claimed feature of the virtual machine and the opcodes (microXML) is found on page 17 lines 16- 18: "The session manager 210 behaves like a virtual machine with its own set of "OpCodes". MicroXML is the parsed vXML scripts interpreted into these OpCodes". (See also page 17, line 15 to page 18 line 4; page 21, line 21 to page 22, line 4; page 25 line 11 to page 28, line 7; and page 34 to page 37.)

Jimenez et al discloses a method for using an audio input from a telephony device to perform an action on an Internet protocol ("IP") network, such as the World Wide Web. The action that can be performed is the dissemination of web audio information, such as "retrieving documents (e.g., HTML, XML, VXML) and streamed audio signals from the Internet, executing audio applications and/or forwarding portions of a retrieved audio signal to someone else." In other words, it enables a user of a telephony device to access and navigate audio information via an IP network. The user's audio inputs are converted by the disclosed audio web telephone system to an action to be performed on the IP network. The action is to retrieve information, generally referred to as a document, from a device on the IP network. A document can be a HTML page, a voice XML page, or some other type of file containing data (e.g., text, audio, multimedia, etc.) the system retrieves, converts to audio output and plays to the user on the telephony device.

The audio web telephone system includes an audio browser that executes special purpose software that adheres to the proposed voice XML standard. A user manipulates the audio browser to select, organize and navigate through a variety of audio sites. The sites can be organized and customized for each user. The organization and/or customization of the users' sites are stored in a database accessible by a web server. When a user selects a particular audio site, the audio web browser connects to the desired site via an optional intervening web cache serving as an HTTP proxy.

Jimenez et al merely discloses using a browser that understands voice XML document, interprets the voice XML script and renders the script line-by-line on-the-fly, similar to a web browser rending HTML scripts. Jimenez does not disclosed the claimed feature of interpreting voice XML scripts into telephony opcodes of a virtual machine and processing a call by running the interpreted opcodes in the virtual machine.

Jimenez et al's conventional browsing method by interpreting the script line-by-line on-the-fly is simpler but has several disadvantages. The interpreting and line-by-line rendering processes are slower and must be repeated every time the same script is presented. It is clear to those skilled in the art that Jimenez et al's method is essentially designed for providing a platform for specific types of applications, typically offered by service providers, to access audio, web, and e-mail, messaging content via telephone, using a VOIP and XML based

platform. As such, the interpretive script execution approach is reasonable for its simplicity albeit lower performance.

In contrast, the claimed aspect of the invention adopts a virtual machine approach where the application can be expressed in opcodes that are compiled into efficient and reusable object codes before running in the virtual machine. This approach is especially efficient when the same telephony application is reused, as is usually the case. In that case, the object codes which are cached can be run immediately without the need to interpret the XML scripts. The virtual machine approach allows for performance and expandability. It provides a platform for a nearly unlimited number of applications and application types – including audio/web/messaging applications like that of Jimenez, but also supporting call control, "follow-me-find-me", personal communications, conferencing, notification, call center, CTI, etc applications. With all things being equal, the expanded power of this platform can support not just a few service providers but hundreds to thousands of enterprises.

The independent method claim 9 is being amended in similar fashion.

In view of the amendment and explanation, reconsideration of the Examiner's rejection of claims 1-8 and 9-15 is respectfully requested. The amended independent claims 1 and 9 are believed distinguishable, unobvious and allowable over Jimenez et al and any other prior art of record. Similarly, claims 2-8 is believed allowable, by virtue of being dependent on a believed allowable amended claim 1, and likewise for claims 10-15, dependent on a believed allowable amended claim 9.

New claim 16 is directed to a method of processing a telephone call to a call number in a networked computer telephony system with quality of service feature similar to that in claim 8. It is believed unobvious in view of the combination of Jimenez et al and Wan et al.

Wan et al discloses a system with traffic monitors that track the congestion of the network (specifically, traffic of a VOIP/streaming audio network.) This monitor system is designed for the normal Internet model where there are centralized web servers and significantly distributed clients (web browsers). A central monitoring computer looks at on-going network traffic by means of information (RTCP packets) extracted from a network of monitors with very high processing speed. In response to congestion, call admission control and bandwidth reduction are two approaches to moderate the congestion. In call admission control, a network of call control centers, gatekeepers are notified by the central computer to regulate the number of

new calls. The call admission control approach is more effective for VOIP services. In bandwidth reduction, the amount of data that needs transmission is reduced for multi-media services in case of network congestion.

New claim 16 (and claim 8 for that matter) recites a system that is completely different from that disclosed in Wan et al. The system of claim 16 has an inverted architecture compared to a normal web/HTTP model in that it has very centralized clients – the platform is like a type of web browser as it fetches markup (the telephony scripts) via HTTP. As a result, the system has hundreds and thousands of clients (each being a port on the AGC supports one HTTP client) that are talking outwardly to distributed web servers. The resulting inverted architecture calls for a different type of web/HTTP/IP traffic monitoring and rerouting. It is as if a user is seeking out the best web browser among a distributed group on the Internet. The best web browser gets the desired web page most readily and the user moves over to the best browser on the Internet to use it.

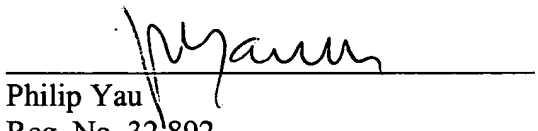
For example, the inventive system's monitoring is proactive by pinging. It is as if each AGC periodically sends out sonar to sound out the accessibility of a desired web page. Wan et al is not proactive, it monitors activity after VOIP/streaming audio sessions are started. The inventive monitoring is towards the external, distributed web servers on which the vXML applications and XML telephony scripts reside, and based on proactively monitored performance results in attempting to fetch from those web servers, altering the directory and other prioritization to get the best quality of service and reliability possible where and when the application gateway centers (AGCs) make outward requests to those servers.

Thus, Wan et al is concerned about monitoring a completely different kind of communication (VOIP/streaming audio, not web/HTTP requests), at a completely different layer of communication technology (Layer 4 not Layer 3) and with a completely different implementation (retroactive RTCP not proactive IP pinging).

Furthermore, it is not obvious to combine Jimenez et al with Wan et al for the same reasons as the architectures are so different. This is testified by the fact that those skilled in the art, including Jimenez et al and any others have not suggested or incorporated the quality of service features recited in the present claim 16 into their web telephony systems.

Claims 1-16 are pending in this application and are all believed allowable. Accordingly, it is believed that this application is now in condition for allowance and an early indication of its allowance is solicited. However, if the Examiner has any further matters that need to be resolved, a telephone call to the undersigned agent at 415-318-1160 would be appreciated.

Respectfully submitted,



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